Remarks

Specification

The Examiner objected to the title as non-descriptive. Applicant has amended the title to "A DISK ENCLOSURE WITH MULTIPLEXERS FOR CONNECTING I2C BUSES IN MULTIPLE POWER DOMAINS."

Claims

Claims 1 to 15 were pending when last examined. With this Response, Applicant amends claims 4, 6, 7, 9, 12, and 13, and cancels claims 5 and 8.

§ 102 Rejection

The Examiner rejected claims 1, 2, and 12 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,233,635 (Son). Specifically, the Examiner stated:

> In regard to claims 1, 12, Son discloses a device comprising a first bus (i.e. secondary bus 0) coupled to the plurality of elements power [sic] by first power domain (see figure 4, col. 4, lines 7-26); a second bus (i.e. secondary bus 1) coupled to the plurality of elements powered by the second power domain (see figure 4, col. 4, lines 7-26); a first controller (i.e. master) coupled to the third bus (i.e. primary bus) (see figure 4, col. 4, lines 7-26); and a first multiplexer operable to selectively coupled the first or the second bus to the third bus so the first controller can communicate with the first or the second plurality of elements (see figure 4, coo. 4, lines 7-46).

July 7, 2003 Office Action, p. 3, ¶ 5 (emphasis added). Applicant respectfully traverses.

Claim 1 recites:

> 1. A disk enclosure comprising:
>
> a first bus coupled to a first plurality of elements powered by a first power domain;
>
> a second bus coupled to a second plurality of elements powered by a second power domain;
>
> a first controller coupled to a third bus; and
>
> a first multiplexer operable to selectively coupl the first or the second bus to the third bus so the first controller can communicate with the first or the second plurality of elements.

Claim 1 (emphasis added).

Son discloses a diagnostic/control system using a multi-level I2C bus having a I2C bus multiplexer 42 that connects a master device 40 on a primary I2C bus to slave devices 43 to 48 on secondary I2C buses 0 to N. However, Son does not disclose or suggest that any of the slave devices are located in different power domains as recited in claim 1. The Examiner cited Son at col. 4, lines 7 to 26, for disclosing slave devices located in different power domains. The cited paragraphs state:

> FIG. 4 illustrates a block diagram of a I2C bus structure of the present invention. As illustrated in FIG. 4, in order to overcome the limitation of the number of the I2C bus slave devices connected to the secondary I2C bus, the primary I2C bus is divided into multiple secondary I2C buses by using the I2C bus multiplexer 42, and multiple I2C bus slave devices (SD00, SD10, SD1N, . . . , SDN0 to SDNN) 43-48 are connected with multiple secondary I2C buses 0, 1, . . . , N.
>
> A master device 40 (I2C bus master device 0) controlling the access of a I2C bus slave device among multiple I2C bus slave devices (SD00 to SD0N, SD10 to SD1N, . . . , SDN0 to SDNN) controls the I2C bus multiplexer 42, and the primary I2C bus connects to only one secondary I2C bus at any one moment.
>
> Therefore, the master device 40 sets the I2C bus multiplexer 42 as a desirous secondary I2C bus before accessing the I2C bus slave device lying on one of said secondary I2C buses, and then accesses the corresponding I2C bus slave device.

Son, col. 4, lines 7 to 27. Applicant cannot find any disclosure or suggestion that the slave devices are located in different power domains in the cited paragraphs or the remainder of Son. Accordingly, claim 1 is patentable over Son for at least reciting a "disk enclosure comprising ... a first plurality of elements powered by a first power domain; a second bus coupled to a second plurality of elements powered by a second power domain," which is neither discloses nor suggested by Son.

Claim 2 depends from claim 1 and is patentable over Son for at least the same reasons that claim 1 is patentable over Son.

Claim 12 recites:

> 12. A disk enclosure comprising:
>
> a first bus coupled to a first plurality of elements powered by a first power domain;
>
> a second bus being coupled to a second plurality of elements powered by the first power domain;
>
> a first controller coupled to a third bus;

a second controller coupled a fourth bus;

a first multiplexer operable to selectively couple the first and the third buses so the first controller can communicate with the first plurality of elements; and

a second multiplexer operable to selectively couple the second and the fourth buses so the second controller can communicate with the second plurality of elements.

Claim 12 (emphasis added).

As described above and shown in Fig. 4 of the cited reference, Son discloses a diagnostic/control system using a multi-level I2C bus having only one I2C bus multiplexer 42 that connects a master device 40 on a primary I2C bus to slave devices 43 to 48 on secondary I2C buses 0 to N. Accordingly, claim 12 is patentable over Son for at least reciting a "disk enclosure comprising ... a first multiplexer operable to selectively couple the first and the third buses ...; and a second multiplexer operable to selectively couple the second and the fourth buses," which is neither disclosed nor suggested by Son.

§ 103 Rejections

The Examiner rejected claims 3 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Son. Claim 3 depends from claim 1 and is patentable over Son for at least the same reasons that claim 1 is patentable over Son. Claim 6 is amended to depend from claim 4 and is patentable over Son for at least the same reasons that claim 4 is patentable over Son. The patentability of claim 4 is discussed below.

Allowable Subject Matters

The Examiner indicated that claims 4, 5, 7 to 11, and 13 to 15 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has amended claims 4, 9, and 13 to independent form as suggested by the Examiner. Accordingly, claims 4, 9, and 13 are in condition for allowance.

Claim 7 depends from claim 4 and is patentable for at least the same reasons as claim 4. Claims 5 and 8 have been canceled, thereby rendering their objections moot.

Claims 10 and 11 depend from claim 9 and are patentable for at least the same reasons as claim 9.

Claims 14 and 15 depend from claim 13 and are patentable for at least the same reasons as claim 13.

In summary, claims 1 to 15 were pending in the above-identified application when last examined. This Response amends claims 4, 6, 7, 9, 12, and 13, and canceled claims 5 and 8. For the above reasons, Applicant respectfully requests the Examiner to withdraw the rejections and objections and allow claims 1 to 4, 6, 7, and 9 to 15. Should the Examiner have any questions, please call the undersigned at (408) 382-0480.

Certification of Facsimile Transmission

I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature

Oct. 7, 2003
Date

Respectfully submitted,

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